

1999 Wood processor Report

Including Import and Export Information

Compiled from 1999 Woodprocessor Reports,
pursuant to 12 MRSA c 805, sub-c 5, §8884

Published July 14, 2000

Updated July 24, 2000



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printed under appropriation 010-04A-5115-512

What is in this report?

This report shows the volume of wood that was processed by Maine mills, imported into Maine, and exported from Maine.

- Tables display wood flow details for: Sawlogs, Pulpwood, Biomass Chips, and Imports and Exports.
- Sawlogs and Pulpwood figures appear in a species-by-county matrix.
- Biomass figures appear by county.
- Import and export figures are tallied by species only.

How was this information collected?

The Maine Forest Service collects information on woodflow through the annual Wood processor Report. The information contained in this report is based upon 1999 woodprocessor reporting forms.

For 1999, reports were recieved from 328 primary processing mills, 177 portable mills, 299 loggers and brokers who may have exported, and from 56 mills that burn some form of wood for energy. These businesses report wood volumes processed by species and county of origin.

What is the purpose of the Wood processor Report?

Each year, the Maine Forest Service collects information from Maine primary wood processors regarding the volume of wood processed in Maine. Information is also collected for volumes imported into Maine or exported from Maine. Volume information contained in these reports is confidential and by law shall not be made public except that summary reports may be published using aggregated data which does not reveal the activities of an individual person or firm (under provisions of 12 MRSA c805, sub-c 5, §8884 "Forest Landowner and Wood processor Reporting Requirements"). Information in this database is tabulated and used for additional purposes as well.

Notes on reading this report:

This wood processor report is arranged so that you can look up volumes by county, imports, exports, and state totals. Maine's sixteen counties are:

<i>Androscoggin</i>	<i>Hancock</i>	<i>Oxford</i>	<i>Somerset</i>
<i>Aroostook</i>	<i>Kennebec</i>	<i>Penobscot</i>	<i>Waldo</i>
<i>Cumberland</i>	<i>Knox</i>	<i>Piscataquis</i>	<i>Washington</i>
<i>Franklin</i>	<i>Lincoln</i>	<i>Sagadahoc</i>	<i>York</i>

The information provided for each county is organized into three (3) major product sections

Product	*Unit of Measure
Sawlogs	MBF
Pulpwood	Cords
Biomass Chips	Green Tons

* Note: Volumes also appear as cords (on summary page) for the purpose of having a common measurement unit for comparison and for calculating grand totals across product type

Wood flow is tallied by: Sawlogs, Pulpwood, and Biomass Chips.

Sawlog Species in this report

Softwood: Spruce and Fir	Hardwood: Beech
White and Red Pine	White Birch
Hemlock	Yellow Birch
Cedar	Sugar Maple
Other Softwood	Red (soft) Maple
	Oak (all)
	Ash (all)
	Aspen
	Other Hardwood

Pulpwood Species in this report

Softwood: Spruce and Fir	Hardwood: Aspen
White and Red Pine	Other Hardwood
Hemlock	
Cedar	
Other Softwood	

Biomass Chips Species in this report

All Species

Definitions and Notes

1. Biomass Chips:

Produced in the woods using entire tree, stem or bole, branches and tops. These chips usually go to wood to energy facilities; however they are suitable for sludge composting, play ground padding, and mulch.

2. Bole/Stem Chips:

Produced in the woods using portable chippers and are made from the lower portion of tree minus limbs and tops. These chips may not be bark free but are suitable for use in pulp mills. There are some stationary tree-length chipping operations.

3. Cords (cfs):

A "cord" is a unit of measure of wood products 4 feet wide, 4 feet high, and 8 feet long, or its equivalent, containing 128 cubic feet when the wood is ranked and well stowed. Any voids that will accommodate a stick, log or bolt of average dimensions to those in the pile shall be deducted from the measured volume.

4. Hog Fuel:

Any woody residue from the woods or mills (such as sawdust, bark, and shavings) and can be biomass chips measured in either green or dry (bone dry) tons.

5. Mill residues:

Clean, pulp quality chips, made from slabs and edgings at sawmills, etc. Measured green tons, mill residues come from the sawlog component of the volume reported and therefore are not additional harvest volumes figures. They do make up a part of the volumes of fiber used to make pulp and should be added to the volume of pulpwood to get the total amount of wood used to make paper.

6. Pulpwood:

Includes tree length; long length; 4', 8', 16'; bole or stem chips converted to cords for comparison with previous figure.

7. Sawlogs:

Include sawlogs, studwood, palletwood, boltwood, and veneer.

8. Thousand Board Feet (mbf):

One thousand board feet. One board foot is a piece of wood 1" thick by 12" long by 12" wide.

Interpreting Harvest, Export, Import, and Processed by the Maine Forest Products Industry

Maine wood processed

wood that was harvested in Maine and utilized by a Maine primary processing facility.

Exported from Maine without processing

wood that is harvested in Maine and exported out of state without primary processing by a Maine mill.

Imported from out of state

wood that is imported from out of state (not harvested in Maine) and primary processed by a Maine mill.

Total processed by Maine Forest Products Industry

amount of wood that was primary processed in Maine regardless of origin.

Pulpwood figures include pulp-quality bole or stem chips that are produced by many of Maine's whole tree chipper operators. These chippers also produce biomass which is burned for energy by many mills and wood-fired electrical generating facilities.

Conversions:

1 MBF = 2 cords 1 cord = 2.5 green tons

Sawlogs

1999 Wood flow in Maine as Reported to the Maine Forest Service (Converted to MBF)

County	Spruce and Fir	White and Red Pine	Hemlock	Cedar	Other Softwood	Total Softwood	Beech	White Birch	Yellow Birch	Sugar Maple	Red Maple	Oak	Ash	Aspen	Other Hardwood	Total Hardwood	Total Sawlogs
Androscoggin	1,293	9,016	1,246	742	0	12,297	192	608	160	299	239	127	227	14	244	2,110	14,407
Aroostook	138,253	3,628	10,030	20,114	975	173,000	1,136	2,831	2,240	5,820	3,858	65	1,195	58,991	0	76,136	249,136
Cumberland	230	29,050	5,112	1	8	34,401	593	311	25	69	637	419	101	17	223	2,395	36,796
Franklin	12,330	8,266	1,488	276	6	22,366	1,203	9,698	994	5,974	3,343	1,716	1,071	220	614	24,833	47,199
Hancock	15,499	7,989	2,786	511	103	26,888	162	2,154	211	919	224	79	539	12,211	66	16,565	43,453
Kennebec	1,267	22,443	3,268	22	7	27,007	133	2,664	135	202	401	713	481	812	183	5,724	32,731
Knox	92	2,876	1,323	27	1	4,319	20	730	51	66	70	73	31	1,458	7	2,506	6,825
Lincoln	164	7,619	1,092	10	0	8,885	0	350	1	0	20	184	49	904	1	1,509	10,394
Oxford	14,192	56,515	4,025	0	6	74,738	2,304	11,255	1,140	3,198	2,723	2,145	1,588	180	2,274	26,807	101,545
Penobscot	134,047	28,154	45,365	7,761	115	215,442	3,602	3,048	1,881	1,896	2,555	386	1,570	17,694	165	32,797	248,239
Piscataquis	96,089	10,996	8,019	511	1	115,616	1,404	3,205	2,372	6,221	2,901	277	1,391	13,047	139	30,957	146,573
Sagadahoc	70	2,468	208	1	0	2,747	0	66	0	1	17	28	1	1	0	114	2,861
Somerset	43,230	14,092	4,208	1,035	89	62,654	1,593	6,800	4,263	2,994	3,736	803	1,248	7,165	79	28,681	91,335
Waldo	3,507	8,453	1,603	519	5	14,087	71	4,416	87	118	253	356	285	4,183	20	9,789	23,876
Washington	29,055	8,523	15,508	116	356	53,558	152	819	112	494	135	28	157	1,336	2	3,235	56,793
York	48	23,074	1,519	0	23	24,664	87	108	14	39	160	251	37	5	27	728	25,392
Maine wood processed:	489,366	243,162	106,800	31,646	1,695	872,669	12,652	49,063	13,686	28,310	21,272	7,650	9,971	118,238	4,044	264,886	1,137,555
Exported From Maine Without Processing:	325,948	18,968	4,506	20,057	203	369,682	667	2,325	9,779	15,492	3,409	9,704	2,314	8,812	17,590	70,092	439,774
Total Harvested from Maine forests :	815,314	262,130	111,306	51,703	1,898	1,242,351	13,319	51,388	23,465	43,802	24,681	17,354	12,285	127,050	21,634	334,978	1,577,329
Imported from Out- of-State:	61,329	38,818	28,403	5,345	262	134,157	1,234	7,361	2,218	5,252	3,799	772	590	66,262	3,512	91,000	225,157
Total Processed by Maine Forest Products Industry :	550,695	281,980	135,203	36,991	1,957	1,006,826	13,886	56,424	15,904	33,562	25,071	8,422	10,561	184,500	7,556	355,886	1,362,712

Notes:

1. Sawlogs include logs, veneer, boltwood, studwood, palletwood, etc. Cords converted to MBF@ 2 cords = 1 MBF.
2. Other Softwood includes larch, pitch pine, and a few others.

Pulpwood

1999 Wood flow in Maine as Reported to the Maine Forest Service (Converted to Cords)

County	Spruce and Fir	White and Red Pine	Hemlock	Cedar	Other Softwood	Total Softwood	Aspen	Other Hardwood	Total Hardwood	Total Pulpwood
Androscoggin	2,749	16,009	3,611	0	201	22,570	6,000	17,177	23,177	45,747
Aroostook	60,537	548	10,664	0	10,616	82,365	1,561	200,528	202,089	284,454
Cumberland	531	30,803	9,173	0	787	41,294	11,373	10,435	21,808	63,102
Franklin	49,542	9,086	11,695	0	9	70,332	20,615	142,178	162,793	233,125
Hancock	44,241	3,734	2,005	0	272	50,252	1,546	80,054	81,600	131,852
Kennebec	8,887	19,106	35,158	0	143	63,294	11,352	43,675	55,027	118,321
Knox	17,373	5,426	829	0	10	23,638	1,003	9,576	10,579	34,217
Lincoln	10,030	8,649	1,117	0	0	19,796	914	7,501	8,415	28,211
Oxford	44,277	40,525	23,221	0	15	108,038	19,297	146,983	166,280	274,318
Penobscot	100,586	17,466	51,289	0	4,819	174,160	13,169	127,663	140,832	314,992
Piscataquis	67,111	4,627	9,904	0	232	81,874	11,557	187,938	199,495	281,369
Sagadahoc	1,630	3,524	2,434	0	8	7,596	523	2,464	2,987	10,583
Somerset	75,327	11,145	18,624	0	931	106,027	31,239	253,738	284,977	391,004
Waldo	27,600	5,699	2,320	0	303	35,922	8,208	47,412	55,620	91,542
Washington	20,615	2,000	1,832	0	859	25,306	22	26,900	26,922	52,228
York	169	30,994	4,050	0	1,474	36,687	2,397	13,507	15,904	52,591
Maine wood processed:	531,205	209,341	187,926	0	20,679	949,151	140,776	1,317,729	1,458,505	2,407,656
Exported From Maine Without Processing:	48,337	6,653	1,472	0	762	57,224	8,611	84,964	93,575	150,799
Total Harvested from Maine forests :	579,542	215,994	189,398	0	21,441	1,006,375	149,387	1,402,693	1,552,080	2,558,455
Imported from Out-of-State:	117,372	80,909	65,154	20	13,223	276,678	72,937	271,084	344,021	620,699
Total Processed by Maine Forest Products Industry:	648,577	290,250	253,080	20	33,902	1,225,829	213,713	1,588,813	1,802,526	3,028,355

Notes:

1. Other Softwood is comprised of bole chips of which specific species information was not collected.
2. Aspen volumes are based upon pure loads.
3. "Other hardwood" is comprised of all hardwood species except aspen sold in pure loads.

Mill Residues: 2,106,540 tons of mill residues were obtained from Maine sawmills and 594,200 tons were imported for manufacture into pulp. These figures are not included in the pulpwood volumes presented elsewhere in this report. This does not represent a drain on the forest resource, but rather, a further utilization of wood already included in the tally.

Biomass Chips

1999 Wood flow in Maine as Reported to the Maine Forest Service (in Green Tons)

County	Biomass Chips
Androscoggin	28,682
Aroostook	177,109
Cumberland	58,721
Franklin	99,552
Hancock	22,121
Kennebec	30,648
Knox	5,693
Lincoln	18,419
Oxford	42,735
Penobscot	82,831
Piscataquis	59,763
Sagadahoc	6,927
Somerset	185,756
Waldo	29,752
Washington	42,019
York	74,124
Maine wood processed:	964,852
Exported From Maine Without Processing:	94,388
Total Harvested from Maine Forests:	1,059,240
Imported from Out-of-State:	395,314
Total Processed by Maine Forest Products Industry:	1,360,166

Biomass Chips are produced in the woods using whole trees, stem or bole, branches, and top. These chips usually go to wood-to-energy facilities. They are also used in sludge composting, playground padding, and mulch.

Wood Imports and Exports

**Origins and Destinations
To and From the State of Maine**

<u>Import Origins</u>	<u>Export Destinations</u>
Connecticut	Connecticut
Massachusetts	New Hampshire
New Hampshire	Vermont
New York	Wisconsin
Pennsylvania	West Virginia
<u><i>Canada</i></u>	<u><i>Canada</i></u>
New Brunswick	New Brunswick
Nova Scotia	Nova Scotia
Quebec	Quebec

Summary:

1999 Wood flow in Maine as Reported to the Maine Forest Service

<u>Product</u>	<u>Harvest, Export, Import, Processed by Maine Forest Products Industries</u>		<u>Total Volume in 1999</u>	<u>Total Volume Converted to cords</u>
Sawlogs (in MBF) 1 MBF = 1,000 board feet	<i>a</i>	Maine wood processed	1,137,555	2,275,110
	<i>b</i>	Exported from Maine without processing	439,774	879,548
	<i>c</i>	Total harvested from Maine forests (a+b=c)	1,577,329	3,154,658
	<i>d</i>	Imported from outside Maine	225,157	450,314
	<i>e</i>	Total processed by Maine Forest Products Industry (a+d=e)	1,362,712	2,725,424
Pulpwood (in cords)	<i>a</i>	Maine wood processed	2,407,656	2,407,656
	<i>b</i>	Exported from Maine without processing	150,799	150,799
	<i>c</i>	Total harvested from Maine forests (a+b=c)	2,558,455	2,558,455
	<i>d</i>	Imported from outside Maine	620,699	620,699
	<i>e</i>	Total processed by Maine Forest Products Industry (a+d=e)	3,028,355	3,028,355
Biomass Chips (in green tons)	<i>a</i>	Maine wood processed	964,852	385,941
	<i>b</i>	Exported from Maine without processing	94,388	37,755
	<i>c</i>	Total harvested from Maine forests (a+b=c)	1,059,240	423,696
	<i>d</i>	Imported from outside Maine	395,314	158,126
	<i>e</i>	Total processed by Maine Forest Products Industry (a+d=e)	1,360,166	544,066
Totals	<i>a</i>	Maine wood processed		5,068,707
	<i>b</i>	Exported from Maine without processing		1,068,102
	<i>c</i>	Total harvested from Maine forests (a+b=c)		6,136,809
	<i>d</i>	Imported from outside Maine		1,229,139
	<i>e</i>	Total processed by Maine Forest Products Industry (a+d=e)		6,297,845

Note on conversions: For Sawlogs: 1 mbf = 2 cords

For Biomass Chips: 1 cords = 2.5 green tons

Summary:

1999 Wood flow in Maine as Reported to the Maine Forest Service

Wood Harvesting Trends (1960-1999)

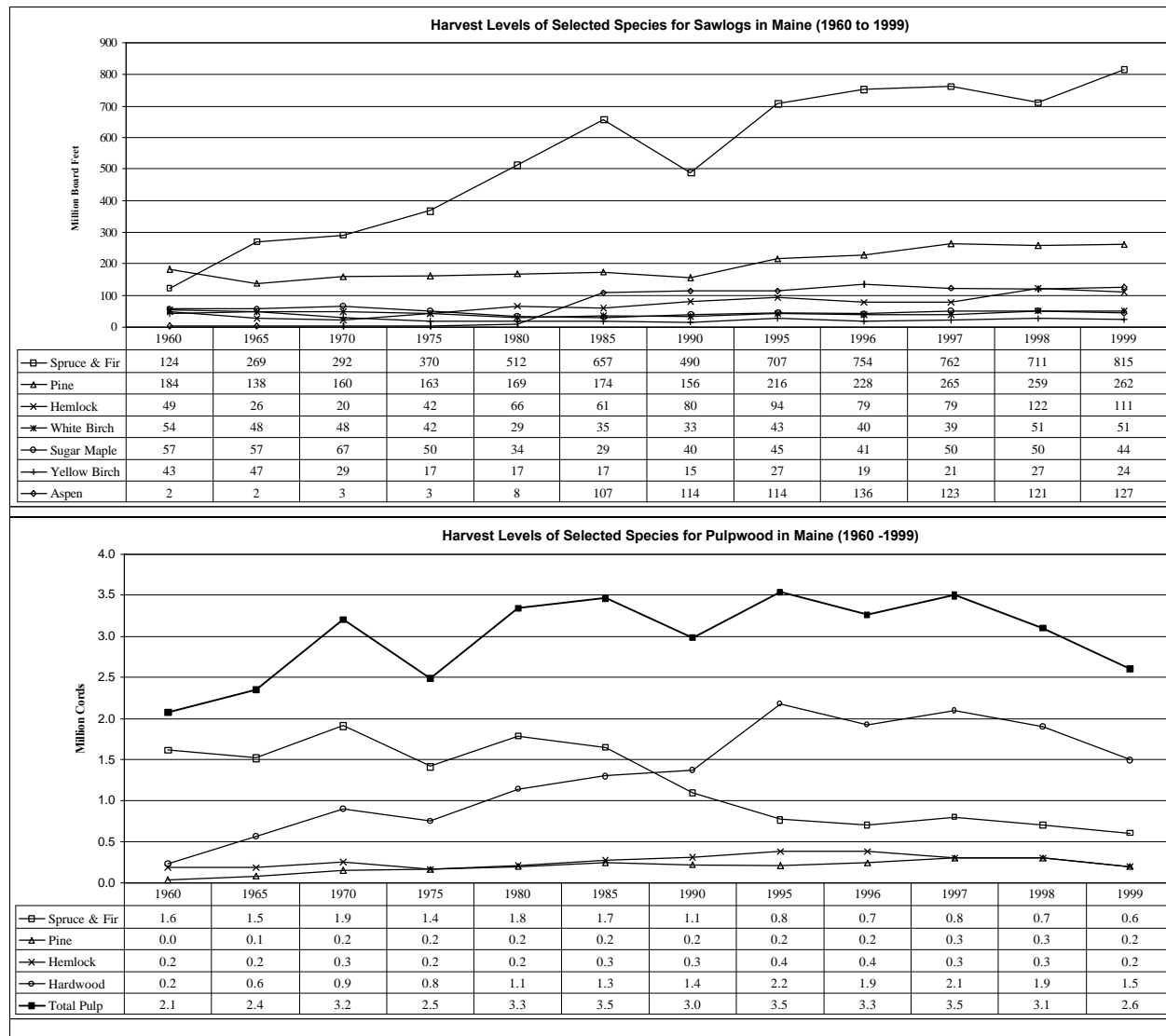
The Maine Forest Service has been collecting data on volume of wood harvested since the late 1940's. The following three charts illustrate wood harvesting trends over the past 38 years.

The two graphs to the right show the harvest volumes for selected species for sawlogs and pulpwood. These volumes include exported volumes.



*Due to reporting error in 1998 wood processor report: Total spruce/fir sawlog harvest in Maine was under estimated by 24,673 MBF. Total spruce-fir sawlog harvested in Maine for 1998 was 710,938 MBF.

Total hardwood pulpwood harvested in Maine in 1998 was over estimated by 370,739 cords. Total hardwood pulpwood harvested in Maine in 1998 was 1.9 million cords.



Summary:

1999 Wood flow in Maine as Reported to the Maine Forest Service

Wood Harvesting Trends (1960-1999)

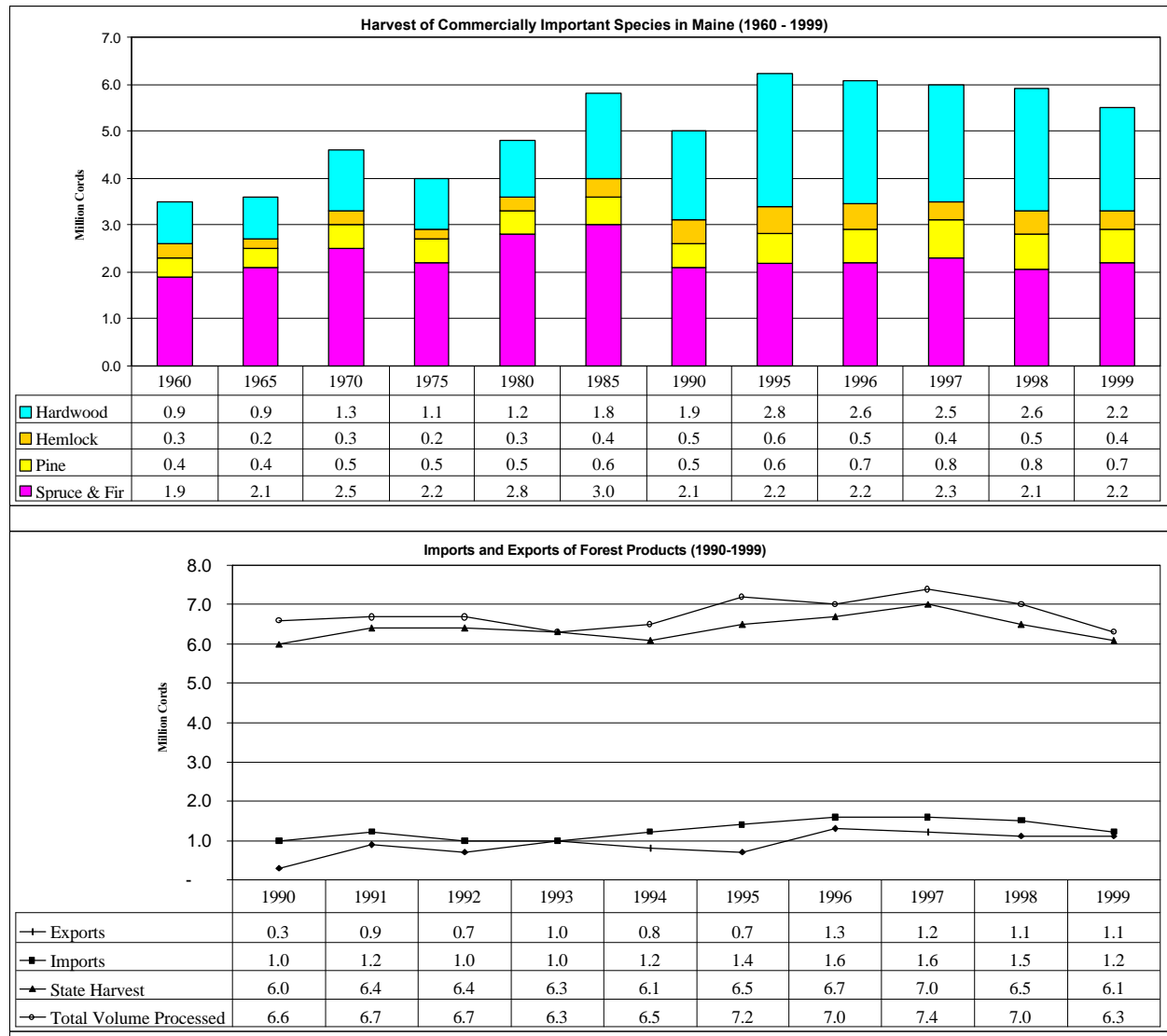
The graph to the right shows the volumes for commercially important species.



*Due to reporting error in 1998 wood processor report, total hardwood harvested in Maine in 1998 was over estimated. Total hardwood harvested in Maine in 1998 was 2.6 million cords.

Import and Export Trends (1990-1999)

The graph to the right shows the volumes of forest products being exported from Maine, imported into Maine, and processed within Maine.



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